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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/336,204	06/18/1999	AUGUST H. BECK III	063007.0010	7364

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EXAMINER

MAMMEN, NATHAN SCOTT

ART UNIT PAPER NUMBER

3671

DATE MAILED: 01/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/336,204

Applicant(s)

BECK, AUGUST H.

Examiner

Nathan S Mammen

Art Unit

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 30 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 12-22 and 34-41 is/are allowed.
- 6) ☐ Claim(s) 1,6,23,25,26 and 30 is/are rejected.
- 7) ☐ Claim(s) 2-5,7-11,24,27-29 and 31-33 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 23 is rejected under 35 U.S.C. 102(b) as being anticipated by Brunsing et al. (U.S. Patent 4,671,367).

The Brunsing '367 patent discloses a drill barrel having a proximal end and a distal end for excavating a shaft in hard rock or other relatively hard earthen material. The drill barrel comprises a barrel portion (50). The barrel portion is substantially hollow and substantially open at its proximal end. A downhole hammer drill (100, 101) is disposed substantially within the barrel portion at the barrel portion's periphery.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 6, 25, 26, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brunsing et al. (U.S. Patent 4,671,367).

The Brunsing '367 patent discloses the claimed invention, as stated in paragraph 2 above, except for the pilot shaft being integral with the barrel and the drill barrel having a diameter of at least 36 inches.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the pilot portion (80) integral with the barrel portion, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the drill barrel with a diameter of at least 36 inches, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claims 26, 30: The Brunshing '367 patent discloses the method of excavating a shaft comprising the steps of excavating a pilot shaft (65) and excavating a collar around the pilot shaft (col. 5, lines 5-54). The collar excavating step includes inserting a piloted drill barrel into the pilot shaft. The drill barrel having a barrel portion (50) comprising pneumatic hammer drill (col. 7, line 27) and a pilot portion (80) in substantial axial alignment with the barrel portion. The piloted drill barrel is rotated by a drive mechanism (col. 5, lines 30-35).

5. Claims 1 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over SU 590445, cited in previous action.

The SU 590445 patent discloses a piloted drill barrel for excavating a shaft in hard rock. The drill barrel comprises a barrel portion (1) having a downhole hammer (2) disposed

Art Unit: 3671

substantially within the barrel portion near the barrel portion's periphery for excavating a collar around a pilot shaft. The drill also comprises a pilot portion (1) axially aligned with the barrel portion and extending distally therefrom to pilot the drill barrel along the pilot shaft during the excavation of a larger diameter shaft. What the SU 590445 patent does not disclose is that the pilot portion is formed integrally with the barrel portion. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the pilot portion integral with the barrel portion, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art.

Howard v. Detroit Stove Works, 150 U.S. 164 (1893).

Allowable Subject Matter

6. Claims 2-5, 7-11, 24, 27-29, 31-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. Claims 12-22, 34-41 are allowed.

Response to Arguments

8. Applicant's arguments with respect to claims 1, 2, 23, 26, 27 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

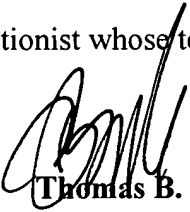
Art Unit: 3671

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Mammen whose telephone number is (703) 306-5959.

The examiner can normally be reached Monday through Thursday from 6:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached at (703) 308-3870. The fax number for this Group is (703) 305-3579.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-1113.


Thomas B. Will
Supervisory Patent Examiner
Group 3600

NSM
01/04/02

Nathan S. Mammen